

*KAKABADZE, V. M.*

USSR/ Chemistry      Physical chemistry

Card : 1/1

Authors : Kakabadze, V. M., and Chachanidze, G. D.

Title : About certain possible reactions in the barium carbonate - silica system

Periodical : Zhur. fiz. khim. 28, Ed. 6, 1013 - 1016, June 1954

Abstract : Thermodynamic investigations were conducted to determine what reactions may take place in the  $\text{BaCO}_3$  -  $\text{SiO}_2$  system and how these reactions conform with the experimental data available in literature and with thermodynamic data for other analogous systems. The results obtained are positively approximated because the concrete reaction process in solid phase depends also upon the non-thermodynamic factors, i.e., rate of diffusion of individual ions in crystalline lattices and upon the conditions of crystallization. Thirteen USSR references. Tables.

Institution : Acad. of Sc. Georg-SSR, Metal and Mining Institute and the S. M. Kirov Polytechnicum, Tbilisi

Submitted : July 3, 1953

KAKABADZE, V. M.

USSR 3

New method for preparing sodium hydroxide. V. M. Kakabadze and T. A. Ivanova. *Doklady Akad. Nauk S.S.S.R.* 194, 733-5 (1954).—A new method is described for the prepn. of NaOH by using mirabilite ( $\text{Na}_2\text{S}$ ) in soln. as the starting material. The desulfurizing agent is a powdered peroxide ore contg. a high percentage of  $\text{MnO}_2$ . The optimum temp. was detd. experimentally to be 18-25°. The most favorable molar ratio of  $\text{Na}_2\text{S}:\text{MnO}_2$  was 1:1.3. The most favorable concn. for the  $\text{Na}_2\text{S}$  soln. was detd. as 5-15.5%. The final product is obtained in a concn. of 11-12% g./l. and is satisfactory for most ordinary requirements. I. Rovtar Lyubch.

USSR/Chemical Technology -- Chemical Products and Their Application. Soda Industry, I-4

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1393

Author: Kakabadze, V. M., and Ivanova, T. A.

Institution: Georgian Polytechnical Institute

Title: Production of Caustic Soda by the Reaction of Sodium Sulfide with Manganese Ores and Industrial Wastes (Manganeses Process)

Original

Periodical: Tr. Gruz. politekhn. in-ta, 1955, No 5 (40), 30-41 (Georgian summary)

Abstract: The possibility of replacing expensive peroxide ores with low-cost ores and industrial wastes has been investigated. Among the substances which were tested are the following: black "bel'ta," [mud?] red "bel'ta," manganese carbonate ore, anode slime from one of the operating plants, and manganese slime, a waste product of the Chiatur manganese industry. It has been established that manganese carbonate ore has a very low sulfur removing ability. Red bel'ta and black bel'ta show a much greater activity (90 and 92%,

Card 1/2

KARABADZE V. M.

✓ Rapid method for determining barium and zinc in barium  
zincate. V. M. Karabade and I. F. Chachanov (S.S.  
Kirov Polytech. Inst., Tbilisi). *Sovetskaya Akad. Nauk  
Gruzia S.S.R. 16, No. 1, 25-9 (1983) in Russian.*—(1)  
the sample (10 ml. of soln.) to 40-50 ml., treat with 2-3  
drops phenolphthalein, heat to 20-40°, and titrate with 0.1  
or 0.5% HCl. All Zn ppts. at the end point as  $Zn(OH)_2$ ;  
heat the sample to 50-60°, treat with methyl red, and  
titrate again with HCl to an orange end point to obtain the  
Zn content. Alternately the methyl red titration is run  
first, then the mixt. is dissd. with  $H_2O$  to 200 ml., acidified  
with 1 ml. HCl, treated with 1-2 g.  $NH_4Cl$ , heated to 70°,  
and titrated with ferrocyanide with uranyl nitrate as external  
indicator; the vol. of the ferrocyanide gives the amt. of Zn,  
and, calculn. from the 1st titration gives the Ba content.  
O. M. Kozolapov

(2)

17/5/84

~~177~~ KAKABADZE, V. M.

✓ The manganese method of barium hydroxide production.  
V. M. Kakabadze and P. I. Gogulidze. *Doklady Akad. Nauk S.S.S.R.* 103, 1053-4 (1956). — A no. of possible  $\text{Ba(OH)}_2$  uses are foreseen, if it can be obtained sufficiently pure. The method recommended is based on the reaction  $2\text{Ba(OH)(SH)} + 2\text{MnO}_2 \rightarrow 2\text{Ba(OH)}_2 + \text{MnS} + \text{S}$ , the probability of which was confirmed by thermodynamic computations. The use of an excess of  $\text{MnO}_2$  over the theoretical amt. was studied. The following advantages are listed for the process: simplicity of equipment (particularly in the already existing lithopone plants) and of manipulations; the purity of the product; and the by-product value. W. M. Sternberg

KAKABADZE, V. M.

USSR /Chemical Technology. Chemical Products  
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31492

Author : Kakabadze V. M., Ivanova T. A.

Inst : Academy of Sciences Georgian SSR

Title : Manganous Procedure for the Preparation of  
Water Glass from Sodium Sulfide

Orig Pub: Soobshch. AN GruzSSR, 1956, 17, No 3, 205-313

Abstract: Description of a new procedure of obtaining water  
glass from Na-sulfide and diatomite on the basis  
of natural mirabilite. By means of manganese  
peroxide ore or of Mn-sludge the process of de-  
sulfurization of Na sulfide is effected with

Card 1/2

KAKABADZE, V.M.; KAKABADZE, I.L.

Absorption of nitrose gases by dry absorbents with simultaneous  
production of complex fertilizers. Soob. AN Gruz. SSR 18 no.5:  
549-556 My '57. (MLRA 10:9)

1. Gruzinskiy politekhnicheskii institut im. S.M. Kirova, Tbilisi.  
Predstavleno akademikom R.I. Agladze.  
(Nitrose) (Absorption) (Fertilizers and manures)

SOV/68-59-5-14/25

AUTHOR: Kakabadze, V.M., Doctor of Technical Sciences, and  
Sikharulidze, N.G.

TITLE: " On the Problem of Decreasing the Consumption of Calcine  
Soda in the Arsenic Soda Method of Purification of  
Industrial Gases from Hydrogen Sulphide (K voprosu  
snizheniya raskhoda kal'tsinirovannoy sody pri  
mysh'yakovo-sodovom sposobe ochistki promyshlennykh  
gazov ot serovodoroda)

PERIODICAL: Koks i khimiya, 1959, Nr 5, pp 39-42 (USSR)

ABSTRACT: The consumption of calcined soda takes place during the  
regeneration of the absorbing solution due to the  
formation of hyposulphate and thiocyanide. Therefore,  
by decreasing the formation of the above two compounds,  
the consumption of soda can be reduced. During studies  
of the solubility of arsenic trisulphide in alkali  
solutions the authors found that sodium sulphide is the  
best solvent (Table 1) and when the latter is used as a  
solvent the ratio of Na : As can be decreased to 0.98  
without the precipitation of arsenic (while this ratio  
for the industrial absorbing solution equals 1.8). The  
Card 1/3 influence of the Na:As ratio on the formation of



SOV/68-59-5-14/25

On the Problem of Decreasing the Consumption of Calcine Soda in the Arsenic Method of Purification of Industrial Gases from Hydrogen Sulphide

hyposulphite was investigated. It was found that the relationship can be expressed by an equation  $K = ae^{bc}$  (Fig 1), where  $K$  = velocity of formation of hyposulphite, g/l/hr  $10^{-3}$ ;  $e$  = base of natural logarithms;  $c$  = ratio of Na:S; and  $a$  and  $b$  = constants. In view of the above, by using sodium sulphide instead of soda a decrease in the consumption of alkali can be obtained. Since sodium sulphide is more expensive than soda, the authors tested a soda solution saturated with hydrogen sulphide by passing raw coke oven gas. The results of the study of the saturation process are shown in Table 2. It was found that 90% of the initially absorbed cyanide is blown back into the gas and that about 62% saturation of  $H_2S$  can be obtained. The use of saturated soda solution for maintaining pH of arsenic absorbing solution was tested on the Zakavkazskiy Coking Plant. The diagram of the plant used for saturation is shown in Fig 3 and the influence of using saturated soda solution

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SOV/68-59-5-14/25

On the Problem of Decreasing the Consumption of Calcine Soda in the  
Arsenic Soda Method of Purification of Industrial Gases from Hydrogen  
Sulphide

on the consumption of calcined soda and arsenic in  
Table 3. The results obtained indicated that the  
consumption of soda decreased by 24% without any increase  
Card 3/3 in the consumption of arsenic.

There are 3 figures, 3 tables and 3 Soviet references.

ASSOCIATION: Gruzinskiy politekhnicheskii institut  
(Georgian polytechnical institute)

SOV/68-59-6-9/25

AUTHORS: Kakabadze, V.M. Doctor of Technical Sciences,  
Sikharulidze, N.G., and Cholokava, N.K.

TITLE: On the Problem of Establishing the Activity of a  
Soda-Arsenical Solution for Sulphur Purification (K  
voprosu ustanovleniya aktivnosti poglotitel'nogo  
rastvora mysh'yakovo-sodovoy seroochistki)

PERIODICAL: Koks i Khimiya, 1959 Nr 6, pp 35-38 (USSR)

ABSTRACT: The present method of the determination of the  
conventional activity of soda-arsenical absorption  
solution shows no relationship between the activity  
determined and the degree of purification of gas from  
 $H_2S$  obtained. The cause of this discrepancy is as  
follows: on determining the activity, oxygen containing  
arsenical compounds precipitated by treatment of the  
analysed solution with the magnesia mixture are deducted  
from the residual arsenic. Meanwhile the treatment  
removes compounds of the type  $Na_3HAS_2S_4O_3$  which are the  
most active in the absorption of hydrogen sulphide. The  
activity of the absorption solution can be also evaluated  
by  $\Delta pH$  (difference in pH before and after regeneration  
of the solution). The authors proposed the following

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30V/68-59-6-9/25

On the Problem of Establishing the Activity of a Soda-Arsenical Solution for Sulphur Purification

formula for the determination of activity:

$$a = \frac{\Delta p H (As_2O_3)''}{(As_2O_3)'} \cdot 100\%$$

where  $a$  = activity,  $(As_2O_3)'$  = residual arsenic, g/l;  
 $(As_2O_3)''$  = arsenical compounds free from oxygen. g/l.  
 The formula was tested at the Zelenokumskiy Metallurgical Works and validity was confirmed. A linear relationship between the activity and percent desulphurization was obtained (Fig 1). In order to simplify continuous observation of the process of purification of gas an approximate method of determining the activity of absorption solution based on the ratio air/ $As_2O_3$  is proposed (Table 2); the

Card 2/2 optimum value of the latter lies within a range of 0.16 to 0.19. There are 2 figures and 2 tables.

ASSOCIATION: Gruzinskiy politekhnicheskii Institut  
 (Georgian Polytechnical Institute)

KAKABADZE, V.M.; IVANOVA, T.A.

Production of caustic soda and blanc fixe from barite and mirabilite. Soob.AN Gruz.SSR 23 no.4:401-408 0 '59. (MIRA 13:5)

1. Gruzinskiy politekhnicheskiy institut imeni V.I.Lenina, Tbilisi.  
Predstavleno akademikom R.I. Agladze.  
(Sodium hydroxide) (Barium sulfate)

KAKABADZE, V.M.; SIKHARULIDZE, N.G.

The establishment of the interrelation between the individual factors of a normal technological regime in the arsenic-soda process of sulfur removal. Koks i khim. no.11:43-45 '60. (MIRA 13:11)

1. Gruzinskiy politekhnicheskiy institut.  
(Coke-oven gas) (Hydrogen sulfide)

KAKABADZE, V.M.; PANTSULAYA, T.V.

On roasting manganese sulfide. Zhur. VKHO 5 no.4:471 '60.  
(MIRA 13:12)

1. Gruzinskiy politekhnicheskii institut imeni S.M.Kirova.  
(Manganese sulfide)

KAKABADZE, V.M.; CHAGUNAVA, V.T.; KORDZAKHIYA, N.M.

Removing an admixture of oxygen from gases by using a complex  
oxide ore. Soob.AN Gruz.SSR 24 no.4:401-406 Ap '60. (MIRA 13:7)

1. Gruzinskiy politekhnicheskii institut im. V.I.Lenina. Pred-  
stavleno akademikom R.I.Agladze.  
(Gases--Purification)  
(Manganese oxide)



KAKABADZE, V.M.; KORZAKHIYA, N.M.

Oxygen removal from gases by means of various manganese containing ores. Trudy GPI [Gruz.] no.5:73-83 '62.

(MIRA 17:10)

KAKABADZE, V.M.; CHACHANIDZE, I.P.

Activity of zinc oxide in the desulfurization process. Tr.  
GPI [Gruz.] no.5:67-72 '62. (MIRA 17:10)

KAKABADZE, V.M.; IVANOVA, T.A.

Combined production of barium sulfate caustic soda and sodium sulfide. Trudy GPI [Gruz.] no.5:85-88 '62.

(MIRA 17:10)

KAKABIDZE, V.M.; NIKOLAISHVILI, N.G.; MCHVENIYERADZE, N.G.

Production of magnesium oxide by carbonization of an aqueous  
suspension of serpentinite. Trudy Inst. prikl. khim. i elektrokhim.  
AN Gruz. SSR 4:53-58 '63. (MIRA 17:5)

KAKHADZE, V.M.; CHENOBIANISHVILI, M.G.; VOLKOV, A.D.

Preparation of sulfur dioxide by the thermal decomposition  
of natural calcium sulfate. Trudy Inst. prikl. khim. i  
elektrokhim. AN Gruz. SSR 4:121-129 '63. (MIRA 17:5)

NIKOLAYSHVILI, Z.G.; KAKABADZE, V.M.; MSHVENIYERADZE, N.G.

Production of a new fertilizer based on magnesium nitrate  
and urea. Soob. AN Gruz. SSR 33 no. 2:247-254 F '64.  
(MIRA 17:9)

DANGADZE, N.D.; KAKABADZE, V.M.

Effect of the rate of coking on the coking capacity and caking  
ability of Georgian coals. Soob. AN Gruz. SSR 36 no.1:93-99  
O '64. (MIRA 18:3)

1. Gruzinskiy politekhnicheskii institut imeni Lenina. Submitted  
January 15, 1964.

DANGADZE, N.D.; KAKABADZE, V.N.

Effect of the compacting of coal charges on the coking capacity. Scob.  
AN Gruz. SSR 37 no.3:603-610 Mr '65. (MIRA 18:5)

1. Gruzinskiy politekhnicheskii Institut imeni Lenina. Submitted  
November 19, 1964.



KAKABADZE, V.M.; NIKOLAYSHVILI, Z.G.; MSHVENIYERADZE, N.G.

Magnesium-containing complex fertilizers. Dokl. AN SSSR 155  
no.1:183-186 Mr '64. (MIRA 17:4)

1. Gruzinskiy politekhnicheskoy institut im. V.I.Lenina i Institut  
prikladnoy khimii elektrokhemii AN GruzSSR.

KAKABADZE, V.M.; NIKOLAYSHVILI, Z.G.; MSHVENIYERADZE, N.G.; BEREZHIANI, L.B.

Physicochemical analysis of the products of interaction between magnesium nitrate and urea. Dokl. AN SSSR 161 no.5:1156-1157 Ap '65. (MIRA 18:5)

1. Gruzinskiy politekhnicheskii institut im. V.I.Lenina. Submitted October 14, 1964.

KAKABADZE, V.S.

Development and location of the building materials industry in the  
in the Lower Kartlia. Soob. AN Grus. SSR 17 no.7:623-628 '56 (MIRA 9:11)

1. Akademiya nauk Gruzinskoy SSR, Institut geografii imeni Vakhushti,  
Tbilisi. Predstavleno akademikom A.N. Dzhavakhishvili.  
(Kartlia--Building materials industry)

KAKABADZE, V. S.

Development and distribution of industry in the Adzhar  
A.S.S.R. Trudy Inst. geog. AN Gruz. SSR 19:87-112 '62.  
(MIRA 16:1)

(Adzharistan—Industries)

KAKABADZE, V.S.

Distribution and development of Racha-Lechkhumi industry.

Trudy Inst. geog. AN Gruz. SSR 15:117-138 '61.

(MIRA 16:11)

KAKABADZE, V.S.

Development and distribution of the industry of upper  
Imeretiya. Trudy Inst. geog. AN Gruz. SSR 11:151-188 '59.  
(MIRA 16:11)

KAKABADZE, V.Sh.; SHCHIN, B.N.

High-temperature conversion of natural gas in a reactor with  
twisted streams. Soob. AN Gruz. SSR 38 no.2:329-336. Ny '65.  
(MIRA 13:9)

1. Moskovskiy institut khimicheskogo mashinostroyeniya  
Ministerstva vysshego i srednego spetsial'nogo obrazovaniya  
RSFSR. Submitted December 2, 1964.

KAKABAYEV, A.; TAGANOV, K.

Duration of sunshine in individual regions of Turkmenistan.

Trudy fiz.-tekh. inst. AN Turk. SSR 8:49-46 '62.

(MIRA 15:11)

(Turkmenistan--Sunshine)



BRDLIK, P.M.; KAKABAYEV, A.

Experimental investigation of the condensation of inside-coil  
steam pipes. Inzh.-fiz.zhur. 6 no.10:104-108 O '63. (MIRA 16:11)

1. Institut stroitel'noy fiziki, Akademiya stroitel'stva i arkhitekturny SSSR, Moskva.

AMINOVA, R.Kh., kand. ist. nauk; TETENEVA, L.G., kand. ist. nauk;  
 ALIMOV, I.A.; DMITRIYEV, G.L.; DZHAMALOV, O.B., doktor  
 ekon. nauk, redaktor; DZHURAYEVA, T., kand. ist. nauk,  
 red.; ATFENYUK, S.Ya., red.; DANILOV, V.P., glav. red.;  
 BELOV, G.A., red.; GRIGOR'YAN, L.L., red.; IBRAGIMOV, Z.I.,  
 red.; IVNITSKIY, N.A., red.; IL'YASOV, S.I., red.; KAKABAYEV,  
 S.D., red.; KAMENSKAYA, N.V., red.; KRAYEV, M.A., red.;  
 KULIYEV, O.K., red.; MAKHARADZE, N.B., red.; OBICHKIN, G.D.,  
 red.; PLESHAKOV, S.T., red.; RADZHABOV, Z.I., red.; SELEZNEV,  
 M.S., red.; TURSUNBAYEV, A.B., red.; FEDOROV, A.G., red.;  
 SHEPELEVA, T.V., red.; FATLAKH, B., red.; MASHALIPOVA, D.,  
 red.; BULATOVA, R., red.; GOR'KOVAYA, Z.P., tekhn. red.;  
 KARABAYEVA, Kh.U., tekhn. red.

[Socialist reorganization of agriculture in Uzbekistan]  
 Sotsialisticheskoe pereustroistvo sel'skogo khoziaistva v Uz-  
 bekistane, 1917-1926 gg. Pod red. O.B.Dzhamalova. Tashkent,  
 Izd-vo Akad. nauk UzSSR. Vol.1. 1962. 792 p. (MIRA 16:5)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut istorii i  
 arkheologii.

(Uzbekistan--Agriculture)

SEMONSKY, M.; ROCKOVA, E.; ZIKAN, V.; KAKAC, B.; JELINEK, V.

Substances with antineoplastic activity. Pt.5. Coll Cz Chem  
28 no.2:377-396 F '63.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

JANCIK, F.; KAKAC, B.

Determination of 11-(3-dimethylaminopropylidene)-  
6,11-dihydrodibenzo[b,e]thiepin (Prothiadene). Cesk.  
farm.13 no.1:3-6 Ja'64

1. Vyzkumny ustav pro farmaci a biochemii, Praha.

CA 114442, 157111

*Pharmacological - coumarins*  
*Benjamin*

Anticoagulants. XVIII. A study of tautomeric equilibria of effective anticoagulative derivatives of 4-hydroxycoumarin. Eduard Knobloch, Bohumil Kakač, and František Macha (Pharm. and Biotech. Research Inst., Prague, Czech.). *Chem. Listy* 46, 416-10(1932); cf. *Chimie Libér. Crakiv* 91, 454(1932).—On the basis of spectrographic and potentiometric measurements of 4-hydroxycoumarin, chromone, coumarin, bis(4-hydroxy-3-oxo-1,2,3-benzopyran-3-yl)acetic acid and its Et ester, dicoumarol, and O-methyl derivs. of the above compds., an equill. between 4-hydroxycoumarin and 2-hydroxychromone is to be supposed in which the latter structure prevails with the bis-derivs. The anticoagulant effect of the bis derivs. is attributed to the "chromone" form of fully dissociated anions at pH 7-8. M. H. dichy.

FUCIK, K.; KORISTEK, S.; JANCIK, P.; KAKAC, B.

Ant.coagulants. Part 15. Substitution of free hydrogen of the 4-hydroxy  
-coumarin and its derivatives [in German with summary in Russian]. Sbor.  
Chekh.khim.rab. 18 no.5:694-709 0 '53. (MLRA 7:6)

1. Nauchno-issledovatel'skiy institut farmatsii i biokhimii, Praga.  
(Coumarin) (Hydroxy compounds)

1. *Diethyl 2,2'-bipyridyl-5,5'-dicarboxylate*, H. Kalk, and M. Preiss.  
 Chem. Ber. 1964-65 (1153). — *Diethyl 2,2'-bipyridyl-5,5'-dicarboxylate* was prepared from tetra-  
 hydroquinoline and  $\text{Be}(\text{Cl}_2)_2$  in 73% yield and charac-  
 terized as the dihydrate, m. 172° (decolor.). (from EtOH)  $\lambda_{\text{max}}$  283 nm.  
 (from EtOH), m. 194° (from EtOH). *Diethyl 2,2'-bipyridyl-5,5'-dicarboxylate* (2.83 g.) dis-  
 solved in 12.5 ml.  $\text{HCl}$  (1:1) was treated at -95° with 10 g.  
 of 1.25 g.  $\text{Na}_2\text{CO}_3$  in 5 ml.  $\text{H}_2\text{O}$ , the mix. filtered after 2  
 hrs., dissolved in 10 ml.  $\text{H}_2\text{O}$ , the soln. acidified with ac-  
 cid,  $\text{Na}_2\text{CO}_3$  and extracted with EtOH and  $\text{CH}_2\text{Cl}_2$ . Brags. of the  
 solvents yielded 1.58 g. (27.7%) *Diethyl 2,2'-bipyridyl-5,5'-dicarboxylate*, m.  
 191-4° (from EtOH). H. Kalk, and M. Preiss.

KAKÁČ B. and SICHŮ V.

Výzkumný Úst. Farmacii a Biochem., Praha. "Stanovení Kyseliny pantothenové rozdělovací chromatografií na papíře. Determination of pantothenic acid by paper partition chromatography ČAS. LÉK. ČES. 1953, 92/49-50 (1372-1373)

The sample containing 8-15 mg. of pantothenic acid in 5 ml. is hydrolysed with 0.3 ml. of conc. HCl in a boiling water bath for 3 hr. After cooling 1 ml. of a 15% alkaline solution of hydroxylamine, HCl, and 1 ml. of 5 N-NaOH are added. After standing for 5 min. the pH is adjusted to 2.5-3.2 with HCl and the volume made up to 10 ml. With a micropipette 20  $\mu$ l. are placed on the paper (Schleicher and Schuell 589 or Whatman 1) and chromatographed with a mixture of n-butanol, acetic acid and water (4:1:5). The spots are detected by spraying with 2% FeCl<sub>3</sub>. Violet spots of R<sub>f</sub> 0.61 indicate the ferric compound of the hydrokamic acid derivative of hydroxydimethylbutyrolactone, a hydrolysis product of pantothenic acid. Besides this spot a reddish spot of R<sub>f</sub> 0.1 due to alanine is visible. The unreacted hydroxylamine appears only after some hours as a spot of R<sub>f</sub> 0.28

Heyrovsky - Prague

SO: Excerpta Medica Section II, Vol. 7, No. 12



CZECH

V. Structure of some 1-substituted 1,2,3,4-tetrahydronaphthalene derivatives. Z. L. Vozelak and O. Latus (Opatowitz, Czech Rep., Prague). *Chem. Abstr.* 48, 10374-1954; *J. Chem. Soc.* 49, 1949. During the alk. hydrolysis of 1-allyl-1-cyano-1,2,3,4-tetrahydronaphthalene, a cyclization to the 8-position occurs giving 1 (R = NH<sub>2</sub>) and 1 (R = O-). Ultraviolet and infrared spectra of 1-propyl-1,2,3,4-tetrahydronaphthalene-1-carbonitrile and of 1 are given.



M. Hrdlicky



K A A - Bohumil

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and  
Their Application, Part 3. - Drugs, Vitamins, An-  
tibiotics.

H-17

Abs Jour : Ref Zhur - Khim., No 14, 1958, No 47812.

Author : Zdonek Indr, Bohumil Kekac.

Inst : -

Title : Stability Study of Sodium Salt of Adenosinetriphosphoric  
Acid.

Orig Pub : Ceskosl. farmac., 1955, 4, No.2, 83 - 84.

Abstract : No abstract.

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Card 1/1

**"APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619920019-4**

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**CIA-RDP86-00513R000619920019-4"**

KAKAC, Benno

CZECH

✓ Cyclization of 1-hydroxy-1,2,3,4-tetrahydro-2H-pyran-2-one  
carboxylic acid. Zdeněk J. Schmidt and Bohumír Kříž  
Collection Czechoslov. Chem. Commun. 20, 511-513 (1955)  
(German).—See C.A. 49, 5117d.

R. J. S.

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*EXPERIMENT 2*

1.8 g. (16%) I and 11.5 g. equal oil (from 2.5 g. I) were  
 reprecipitated from 100 ml. hexane to give 8.0 g. IV, m. 81° (from 2.5 g. I, m. 81°).  
 Recrystallized from 100 ml. hexane to give 7.25 g. VII, m. 103° (from 2.5 g. I, m. 103°).  
 Recrystallized from 100 ml. hexane to give 6.75 g. VIII, m. 114° (from 2.5 g. I, m. 114°).  
 Reduction of 500 mg. III with 2 g. sodium metal in 20 ml. THF, 5 ml. HCl, and 5 ml. PhMe (24 hr.) gave IV. Recrystallization of 17 g. I dissolved in 60 ml. hexane with HCl (15 ml. in 1 ml. hexane) at 3-4°, and decolorized with 10 g. ice and 170 ml. HCl gave 7.25 g. 43% II, and 6.75 g. neutral oil which on chromatography yielded 1.33 g. VII, b.p. 103° (1.5 g. I, m. 103°), 0.51 g. VI, b.p. 123° (1.5 g. I, m. 123°), and 2.32 g. III. Cyclization of 8.3 g. I dissolved in 10 ml. CCl<sub>4</sub> with 8.3 g. SnCl<sub>4</sub> in 10 ml. CCl<sub>4</sub> at 5-20°, and decolorized the mixt. with 20 g. ice and 100 ml. HCl gave 0.44 g. (3%) II, and 7.45 g. of an oil from which were isolated 1.61 g. III, 1.48 g. VIII, 1.53 g. VII, and 1.16 g. VI. A reference sample of VII b.p. 139°, m.p. 1.5894. Hydrogenation of 1-benzyl-1,2-dihydro-4(3H)-naphthalenone gave the 4-H compound (XI), (75.5%), b.p. 185°. XI (5 g.) and 5 g. Z (5 g.) were heated 10 min. at 80°, the mixt. extd. with 40 ml. hexane, and 3.5 g. (78%) of the residual oil chromatographed to give 2.35 g. X, b.p. 127°, m.p. 1.6054. Adding 0.3 g. of tetralone, b.p. 103-12°, m.p. 1.5731, dissolved in 10 ml. Et<sub>2</sub>O, to the Grignard reagent prepd. from 1.05 g. Mg and 2.6 g. PhCH<sub>2</sub>Cl in 50 ml. Et<sub>2</sub>O, refluxing the mixt. 1 hr. and decolorized the mixt. with 10 g. K<sub>2</sub>CO<sub>3</sub> in 100 ml. Et<sub>2</sub>O yielded 8.28 g. 1-benzyl-1,2,3,4-tetrahydronaphthalene (XII) b.p. 167°, m.p. 1.5974. Treatment of 4 g. XII with 1 g. ZnCl<sub>2</sub> on chromatography, and distn. yielded 3.35 g. (81%) VI, b.p. 127°, m.p. 1.6201. Infrared spectra of I, III, IV, and VIII, and ultraviolet spectra of I, III, IV, VI, VII, VIII, X, and XI, and 1,4-dihydronaphthalene, and tetralin are given.

M. R. H. H. H. H.

KAKAČ, BOHUMIL

✓ Verstrum alkaloids. II. Components of veratrine.  
Zelazek J. Verstrum, Karel Mares, and J.

2. Zdeněk J. Vejdělek, Karel Marek, and Bohumil Kalný  
(Vichronec dist., Crim. Biochem. Inst., Prague)

[illegible]

... ..

1. The first group of people who are interested in the results of the study are the researchers themselves. They want to know how well the study was conducted and whether the results are reliable.

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Lichtenthaler and Whistler (1973). The total protein concentration was determined by the method of Lowry et al. (1951). The protein concentration was determined by the method of Lowry et al. (1951). The protein concentration was determined by the method of Lowry et al. (1951).

<sup>a</sup> All values are means ± SD.

and the other two are the same as in the previous case. The first two are the same as in the previous case. The first two are the same as in the previous case.

and 682 mg, IV, m 104-5°;  $[\alpha]_D^{25} = +20.1^\circ$  (in  $\text{CHCl}_3$ ), and by elution with MeOH, 100 and 191 mg, m 104-5°.

the aqueous layer after the addition of 10 ml. of 10% NaOH. The aqueous layer after the addition of 10 ml. of 10% NaOH was extracted with 10 ml. of chloroform. The combined organic layers were dried over anhydrous  $\text{CaCl}_2$  and concentrated under reduced pressure to give 0.5 g. of a solid. Recrystallization from 95% ethanol gave 0.3 g. of crystals, mp 100–101°C. The mother liquor and the crystals were dried under reduced pressure to give 0.3 g. of crystals, mp 100–101°C. The mother liquor and the crystals were dried under reduced pressure to give 0.3 g. of crystals, mp 100–101°C.

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VII. *Conclusions*—The results of this study indicate that the use of a single, standardized, and validated instrument to assess the quality of life of patients with a variety of chronic diseases is feasible. The results also indicate that the use of a single, standardized, and validated instrument to assess the quality of life of patients with a variety of chronic diseases is feasible. The results also indicate that the use of a single, standardized, and validated instrument to assess the quality of life of patients with a variety of chronic diseases is feasible.

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1947

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At. 1911



KAKAC, Bohumil

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and  
Their Application. Medicinals. Vitamins.  
Antibiotics

J-3

Abs Jour : Referat Zhur - Khimiya, No 2, 1958, 5591

Author : ~~Kakac Bohumil~~, Vejdelek Zdenek J.

Inst : Not given

Title : Determination of Ethianacine

Orig Pub : Ceskosl, farmac., 1956, 5, No 3, 140-146

Abstract : On action of nicotinoyl chloride on ethylene glycol there are formed, in addition to the main product -- ethianacine, beta-hydroxyethyl nicotinate (I) -- also the dinicotinate of ethylene glycol (II) and nicotinic acid (III). Since II renders unstable the solutions of I used for injections, a polarographic method was developed for determining I in : the presence of II, and also of III. After separation of I from III and II, on the basis of different solubility. In alkaline medium, II can also be determined polarographically with an accuracy of up to 0.1%; III is determined volumetrically.

~~Card 1/2~~

~~Bohumil~~ KAKAC, B

\* Category: Czechoslovakia/Analytical Chemistry - Analysis of organic substances. G-3

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 31064

Author : Smid Milos, Kakac Bohumil, Padr Zdenek

Inst : not given

Title : Tetrazolium Salts. I. Determination of 2-Methyl-1,4-Naphthoquinone.

Orig Pub: Ceskosl. farmac., 1956, 5, No 4, 212-215

Abstract: Cleavage products formed on action of alkali on 2-methyl-1,4-naphthoquinone (I) reduce 2,3,5-triphenyl-tetrazolium chloride (II) or 3,3'-dianisol-bis-4,4'-(3,5-diphenyl)-tetrazolium chloride (III) to colored formazanes. Intensity of the coloration of the formazanes that are formed depends on the concentration of I in the initial solution. This is utilized for a photometric determination of I in the injection solutions of K-Spofa vitamin (IV). The plot the calibration curves, there are consecutively poured together alcohol solutions of I (10 ml, 1-10  $\gamma$ /ml),

Card : 1/2

-9-

*KAKAC, Bohumil*

Czechoslovakia /Chemical Technology. Chemical Products I-21  
and Their Application

Medicinals. Vitamins. Antibiotics.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32307

Author : Kakac Bohumil, Roubal Zdenek

Title : Polarographic Determination of 7-Iodo-8-  
Hydroxyquinoline-5-Sulfonate of Bismuth  
(Bi-Yellow)

Orig Pub: Ceskosl. farmac., 1956, 5, No 5, 271-273

Abstract: The method for the determination of "Bi-Yellow"  
is based on a polarographic reduction of 7-iodo-  
8-hydroxyquinoline-sulfonic acid and the tar-  
trate complex of bismuth in the buffer solution  
of MacIlvaine (pH 5). In comparison with the  
gravimetric and volumetric determinations the

Card 1/2

Czechoslovakia /Chemical Technology. Chemical Products I-21  
and Their Application

Medicinals. Vitamins. Antibiotics.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32307

the polarographic method has that advantage that it permits a simultaneous and sufficiently accurate determination of both component parts of the preparation. Comparative data on determination of both component parts of the preparation. Comparative data on determination of the preparation by different methods are included.

Card 2/2

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619920019-4

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619920019-4"

*KAKAC, B.*

CZECHOSLOVAKIA / Analytic Chemistry. General Topics. E

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60556.

Author : V - Jiri Korbl, Bohumil Kakac; VI - Jiri Korbl,  
Rudolf Pribil; VII - Jiri Korbl, Eduard Kraus,  
Rudolf Pribil.

Inst : -

Title : Metallochromic Indicators. V. Properties of Methyl-  
thymol Blue as of Acid-Base Indicator. VI. Analogues  
of o-Cresolphthalein Complexon. VII Glycinethymol  
Blue.

Orig Pub: Chem. listy, 1957, 51, No 9, 1680-1685; No 10, 1804-  
1808; 1809-1813.

Abstract: The behavior of methylthymol blue (I, 3,3'-bis-N,

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619920019-4"

Card 1/11

CZECHOSLOVAKIA / Analytic Chemistry. General Topics.

E

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60556.

Abstract:  $10^{-5}$  M solution of I with 595 m  $\mu$  depending on pH; 2 more changes of I color in the alkaline region from light-blue into grayish yellow and, at least, into dark-blue correspond to the two latter pK values. The adduction of three protons takes place in strongly acid solutions of I; the adduction to quinone O accompanied with the destruction of the H bridge is revealed by the change of I color from yellow into red. This transition is shifted to the more acid region as compared with II. The acid-base properties of I may be explained simply assuming that the forms of sulfonephthalein dyes, the electron structure of which is more symmetrical, are colored more intensively.

VI. The acid-alkaline and metallochromic proper-

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CZECHOSLOVAKIA / Analytic Chemistry. General Topics.

E

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60556.

Abstract: already at pH = 7 to 8; it becomes more intensive with the rise of pH in consequence of the formation of colored ions. The color intensity of individual forms depends on the fact, whether a symmetrical, or an asymmetrical resonance system is being produced, at which occasion it is necessary to take into consideration the hydrogen bridges between the phenol O-s and N atoms. The alkaline form of III is purple, that of IV is blue, and that of V is violet. A qualitative color change from blue into reddish-gray is observed in IV near pH = 12. The color of III becomes weaker at pH = 13 to 14 analogously to the initial indicator. The least and, consequently, the most favorable intensity rise of the coloration proper together with pH is observed at IV. III, IV and V possess

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62



CZECHOSLOVAKIA / Analytic Chemistry. General Topics.

E

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60556.

Abstract: VI are lower as compared with I or other similar indicators ( $\text{Ni}^{2+}$ ,  $\text{Fe}^{3+}$  and  $\text{Pd}^{2+}$  produce complexes). Starting from  $\text{pH} = 3$ . VI produces complexes of dark blue color with numerous cations at various pH magnitudes. At the titration with ethylenediaminetetraacetic acid (VII) solution, the color transitions are clear in the case of  $\text{Cu}^{2+}$ ,  $\text{Zn}^{2+}$ ,  $\text{Pb}^{2+}$  and  $\text{Hg}^{2+}$ , and they are lengthy in the case of  $\text{Pd}^{2+}$ ,  $\text{Ni}^{2+}$ ,  $\text{Co}^{2+}$  and  $\text{Fe}^{3+}$ . The application of VI is practically important first of all for the direct complexometric determination of  $\text{Cu}^{2+}$  in an acid medium; VI is suitable for that purpose more than 1-(2-pyridylazo)-2-naphthol or variamine blue B first of all because the Cu complex is well soluble and due to the clear change of color. Method of work: a corresponding volume of 0.05 M

Card 10/11

Country : CZECHOSLOVAKIA G  
 Category : Organic Chemistry. Natural Substances and  
 Their Synthetic Analogs  
 Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15543  
 Author : Weichert, J.; Blaha, L.; Kakac, B.  
 Institut. : -  
 Title : Studies in the Series of Vitamins K and E. VI.  
 Preparation of 2,5,7,8-Tetramethyl-2-( $\beta$ -Carb-  
 oxyethyl)-6-Oxychromane and the Product of  
 Orig. Pub. : Chem. listy, 1958, 52, No 4, 722-726  
 Abstract : One of the final products of the exchange of  
 1-tocopherol-lactone 2-(3-oxy-3-methyl-5-carb-  
 oxypentyl)-3,5,6-trimethylbenzoquinone (I), is  
 obtained by a method analogous to the process  
 of oxidation of tocopherols to tocopheryl qui-  
 nones - by oxidation of 2,5,7,8-tetramethyl-2-  
 ( $\beta$ -carboxyethyl)-6-oxychromane (II). The pro-  
 duct is identical to the natural one according  
 \* Its Oxidation  
 Card: 1/5

Country : G  
 Category :  
 Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15543  
 Author :  
 Institut. :  
 Title :  
 Orig. Pub. :  
 Abstract : 110-120°, whereupon 7.7 g. of 2,5,7,8-tetra-  
 cont'd. methyl-2-( $\beta$ -carboxyethyl)-6-acetoxychromane  
 was obtained, with yield of 60%, m.p. 154°  
 (from CH<sub>3</sub>OH), pK 5.80; it can also be obtained  
 by acetylation of II. By boiling 15 g. of the  
 unpurified product in 200 ml. of CH<sub>3</sub>OH with  
 190 ml. of 2 n. methanol solution of KOH for  
 25 minutes, II is obtained, with yield of 52%,  
 m.p. 173° (from diluted CH<sub>3</sub>OH); methyl ether  
 were obtained directly from the acetoxy deri-

Cards: 3/5

G - 92

Card: 4/5

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of E-3  
Organic Substances.

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 27143.

Author : Jancik, F., Kakac, B., Vanicek, V., and Brublov-  
ska, M.

Inst : Not given.

Title : The Volumetric and Polarographic Determination of  
and Stability Studies on N-Nitroso-N-Methylurea.

Orig Pub: Chem Listy, 52, No 5, 909-914 (1958) (in Czech).

Abstract: Two methods have been developed for the quantitative  
determination of N-nitroso-N-methylurea (I), an  
acidimetric method and a polarographic method. When  
the acidimetric method is used, the excess NaOH left  
after the alkaline hydrolysis of I by the equation  
 $\text{CH}_3\text{N}(\text{NO})\text{CONH}_2 + \text{NaOH} \rightarrow \text{CH}_2\text{N}_2 + \text{NaCNO} + 2\text{H}_2\text{O}$  is ti-  
trated. 150-200 mg I is stirred with 25 ml 0.1 N

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87

KAKAC, B.

**AUTHORS:** Jandík, P., Kakač, B. and Janiček, V.  
**TITLE:** Determination of Dimethylurea in the Presence of Mono-methylurea (Stanovení dimethylmočoviny ve směsi s monomethylmočovinou)

**PERIODICAL:** Chemický listy, 1956, Vol 52, Nr 11, pp 2181 - 2185 (Czechoslovakia)

**ABSTRACT:** Dimethylurea, which is an important intermediate in the synthesis of caffeine and other purine derivatives, is produced during the methylation of urea by methylamine at elevated temperatures. Since monomethylurea is also produced in this reaction which, on further methylation, is converted to dimethylurea, the final product may contain large or small quantities of monomethylurea. The presence of unreacted urea is unlikely. The determination of monomethylurea (I) in dimethylurea (II) is of importance for both the following of the production process and for the evaluation of the final product. The authors were unable to find a suitable method in the literature. Watt and Chirp (Ref. 1) described a colorimetric determination of urea on the basis of its

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colour reaction with p-dimethylamino benzaldehyde. Since this reaction is general for primary amino-groups, monomethylurea gave this reaction, as was expected. Dimethylurea does not react with p-dimethylamino benzaldehyde. The colorimetric determination contains suitable for a range of monomethylurea contents in dimethylurea. The authors state that it is possible to use, for a rapid estimation, the water content in products of the a sharp change in the freezing point which is dependent on the composition. The water content in products of the above reaction does not usually exceed several hundredths or a tenth of one per cent. It was shown that a small quantity of water results in a consistent lowering of the freezing point, so that it is possible to introduce a correction.

**Reagents and Apparatus:** M.P. of dimethylurea was 100.5°C and a micro determination showed that it was 99.9% pure monomethylurea (M.P. 98-99°C) and a purity of 99.6%. Moisture was not detectable either by the Fischer method. Standard solutions of monomethylurea was prepared by dissolving it in re-distilled water (50 mg in

Card2/7

100 ml). Dimethylurea solution was made by dissolving the substance in 5% ethanol (50 ml) containing concentrated hydrochloric acid (5 ml). The colorimetric determination was carried out using a Hilger Specter with a cuvette and a violet filter (No. 601). The determination of the melting point was carried out in a test tube about 1 cm long in a constant diameter 1 cm fitted with a cork with a thermometer. Into an out-test tube in cm 2.5 cm. A calibrated thermometer (0 - 250°C accurate to 0.1°C) was carried in a cork (also with a cork) fitted into the smaller tube. The thermometer is read with the aid of a lens and the time measured by stopwatch. The apparatus is heated in a paraffin oil bath. Samples of the mixture monomethylurea and dimethylurea (about 100 mg) were accurately weighed and then dissolved in re-distilled water (100 ml). Portions of these solutions (10 ml) were pipetted into 25 ml volumetric flasks and the method to the area as for the calibration curve preparation. Measure 10 min after the addition of reagent and read off the amount from

Card3/7

Determination of Dimethylurea. A calibration curve was obtained by plotting optical density against concentration of dimethylurea in water. The calibration curve was linear in the range 0.2 - 3.0 mg. per ml. water. With a Beckman DU spectrophotometer, 25 ml. volumetric flasks and 1 cm. quartz cells, the maximum absorption of the mixture was found to be at 268 m $\mu$ . The yellow colour reaches a maximum after 7 min. and is stable for at least six hours (not examined further). Maximum absorption in the same mixtures as above, i.e., "20" - 425 m $\mu$ . Reagent solution diluted in a similar manner was used as blank. In contrast to the report of White and Christy, the authors did not note any change in the extinction which was dependent on the amount of reagent added over the range 8-14 ml. so long as the same solution was used for the flask. The calibration curve was linear in the range 0.2 - 1.6 mg/25 ml. and then curved upwards.

Precipitation Based on Freezing Point. About 1-5 g. of the mixture is weighed into the thermometer tube so that the mercury bulb of the thermometer, when placed in position, is completely covered by the fused mass. The tube is then placed in the oil bath heated to about 190°C. Following the melting of the mixture (thermometer in the

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inner tube will read about 120 °C) the tube is closed with cotton wool and the tube, with thermometer placed in the outer tube, is blown at the temperature in question. The inner tube reads 110 °C further fall in temperature are read in 0.5 °C steps and falls. The period of slow temperature fall is the freezing point. This normal course is only encountered in mixtures containing 80 - 100% diethylurea. In aprotic mixtures containing monomethylurea, the change with time with three amounts of monomethylurea, the change with time is different. Following the minimum temperature there is a further steep rise of the thermometer. The maximum temperature reached following the slow fall. The maximum temperature of freezing point is the minimum is considered to be the freezing point. In qualitative differences in the course of freezing point to decide whether mono- or diethylurea predominates this can also be confirmed by the addition of standards. This can also be confirmed by an increase in the freezing point the mixture being analysed. The predominant component is the same as indicated that the evaluation of the results is based on the calibration curve, freezing points of mixtures containing 0-100% of mono- and diethylurea, respectively.

Cards 17

**Reduction of Freezing Point of the Mixtures by Water.** The presence of water reduces the freezing point of water to lower than the freezing point by 3° C. Determination of water by the K. placating method allows corrections to be made, so that correct results are obtained.

Placeating was used to determine the amount of water in both color-lactic and freezing point ethanol for the determinations. It is probable that ethanol for the determinations in the color-lactic method is 1.1% water. From the point of view of time and work involved, the use of the presence of water, the amount of water and its use in water. Compounds with primary alcohols and secondary alcohols are determined of dimethylolurea. The primary point method is convenient from the point of view of time and work involved and it is possible to determine approximately and satisfactorily and it is also possible to determine approximately and satisfactorily. Several determinations were made, however, the amount of water correction which may be necessary if water is present. Probable S.D. of the method = 0.7% (relative). The authors state that both

Case 12-13007

Methods have proved very convenient during lengthy clocks on production.  
There are 3 figures, 2 tables and 2 references, 1 of which is German and 1 English.

ASSOCIATION: Vjshnyy detey prc (arsenal) a blochest, Pech-  
(Research Institute for the Army and Blockade), Pech-  
February 18, 1945  
UNCLASSIFIED:

This is a complete translation except for tables, figures and references.

COUNTRY	: Czechoslovakia	G-3
CATEGORY	:	
ABS. JOUR.	: RZKhim, No. 5 1960, No.	17999
AUTHOR	: Weichet, J., Blaha, L., and Kakac, B.	
INST.	: Not given	
TITLE	: Investigation of the Vitamin K and E Group. VI. The Preparation of 2,5,7,8-Tetramethyl-2-( $\beta$ carboxylethyl)-6-hydroxychromane and Its Oxidation*	
ORIG. PUB.	: Collection Czechoslov Chem Commun, 24, No 5, 1689-1694 (1959)	
ABSTRACT	: See RZKhim, 1959, No 5, 15543.	

APD: 1/1

\* Product.

104

Distr: 4E2c(j)

Volumetric and polarographic determination of 1-methyl-  
1-methylurea and investigation of its stability. P. Jančík,  
B. Kříž, V. Vaníček, and M. Vrublovská. Collection  
Czechoslov. Chem. Commun. 24, 1181-1 (1959).—See C.A.  
53, 6080d. M. Kudlicky

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ADLEROVA, E.; BLAHA, L.; BOREVICKA, M.; ERNEST, I.; JILEK, J.O.; KAKAC, B.;  
NOVAK, L.; RAJSNER, M.; PROTIVA, M.

Synthetic experiments in the group of hypotensive alkaloids. VI.  
Some notes on the preparation of alicyclic components in the  
synthesis of compounds of the reserpine type. Coll Cz Chem 25 no.1:  
221-236 Ja '60. (EBAI 9:12)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.  
(Alkaloids) (Hypotension)  
(Alicyclic compounds) (Reserpine)

BLARA, L.; WEICHET, J.; ZYACEK, J.; SMOLIK, S.; KAKAC, B.

Synthetic experiments in the group of hypotensive alkaloids. VII.  
Preparation of (+)-deserpidine and (+)-isodeserpidine. Coll Cz  
Chem 25 no.1:237-244 Ja '60. (HEAI 9:12)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.  
(Alkaloids) (Hypotension) (Deserpidine)  
(Isodeserpidine)

NOVAK, L.; JILEK, J. O.; KAKAC, B.; ERNEST, I.; PROTIVA, M.

Synthetic experiments in the group of hypotensive alkaloids. IX. A new method for splitting racemates in the total synthesis of reserpine.  
Coll Cz Chem 25 no.8:2196-2206 Ag '60. (REAI 10:9)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

(Alkaloids)	(Hypotension)	(Tartaric acid)
	(Reserpine)	

EXNER, O.; KAKAC, B.

Acyl derivatives of hydroxylamine. V. Acylation of derivatives of  
hydroxylamine. Coll Cz chem 25 no.10:2530-2539 0 '60.  
(EBAI 10:9)

1. Institut de polarographie de l'Academie des sciences tcheoslo-  
vaque, Prague et Institut de recherches pharmaceutiques et biochimiques,  
Prague.

(Acylation) (Hydroxylamine)

HANC, O.; CAPEK, A.; KAKAC, B.

Microbiological transformation of steroids, XV. Transformation of steroid S (Reichstein) by Absidia orchidis 310. Folia microbiol 6 no.6: 392-397 '61.

1. Research Institute for Pharmacy and Biochemistry, Praha 12.

(HYDROCORTISONE rel opds)

KAKAC, B.; VEJDELEK, Z. J.

Photometric determination of some components of vitamin B complex,  
Česk. farm. 10 no.10:522-540 D '61.

1. Vyskumny ustav pro farmacii a biochemii, Praha.

(VITAMIN B COMPLEX chem) (PHOTOMETRY)

RAJSNER, M.; KAKAC, B.; PROTIVA, M.

Synthetic experiments in the group of hypotensive active alkaloids.  
I. Reaction of 3-bromine-5-acetoxy-8-hydroxy-cis 3,4,5,8,9,10-hexahydro-1-naphthoic-acid lactone with silver(I)-acetate. Coll Cz chem 26 no.1:91-97 Ja '61. (HEAI 10:9)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

(Hypotension) (Alkaloids) (Bromine) (Lactones)  
(Silver acetate) (Hexahydronaphthoic acid)  
(Hydrides)

PROTIVA, M.; CAPEK, A.; JILEK, O.; KAKAC, B.; TADRA, M.

Synthetic experiments in the group of hypotensive active alkaloids.  
XVIII. Microbiologic reduction of lactons of the (+)-5-oxo-8 $\beta$ -hydroxy-cis-1,4,5,8,9,10-hexahydro-1 $\beta$ -naphthalic acid. Coll Cs chem 26 no.6:1537-1541 Je '61.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

(Lactons) (Naphthalic acid)



JILEK, O. J.; KAKAC, B.; PROTIVA, M.

Synthetic experiments in the group of hypotensive active alkaloids.  
Part 19: Reduction of ( $\pm$ )-5,8-dioxo-cis-1,4,8,9,10-hexahydro-1/3-naphthoic acid isopropylesters according to Meerwein, Coll. Cz. Chem. 26 no. 9: 2229-2237 '61.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

(Alkaloids) (Esters)

Chem.

CAPEK, A.; HANG, O.; KAKAC, B.; TADRA, M.

Microbial transformation of steroids. XVIII. Dehydrogenation of cortisone in position 1-2. Folia microbiol. 7 no.3:175-180 '62.

1. Research Institute of Pharmacy and Biochemistry, Prague 3.  
(STERIODS metab) (FUNGI metab) (MYCOBACTERIUM metab)

CAPEK, A.; TADRA, M.; KAKAC, B.; ERNEST, I.; FROTIVA, M.

Microbiological transformation of derivatives of hexahydronaphthol:  
acid. Folia microbiol. 7 no.4:253-254 '62.

1. Institute of Pharmacy and Biochemistry, Prague 3.  
(NAPHTHALENES -- metabolism) (LACTONES -- metabolism)  
(FUNGI -- metabolism) (ACTINOMYCES -- metabolism)



SEMONSKY, M.; ROCKOVA, E.; CERNY, A.; KAKAC, B.; MACEK, K.

Substances with antineoplastic effect. Part 4 : Some  $\gamma$ -aryl- $\alpha$ , $\beta$ -substituted  $\Delta^1$ -crotonlactones. Coll Cz Chem 27 no.8:1939-1944 Ag '62.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

\*

KAKAC, B.; HUDLICKY, M.

Quantitative determination of fluothane and its isomer by means  
of infrared spectrophotometry. Coll Cz Chem 27 no.11:2616-2620  
N 62.

1. Research Institute for Pharmacy and Biochemistry, Prague.

KAKÁČ, B; HUDLICKÝ, M.

Czechoslovakia

Research Institute for Pharmacy and Biochemistry --  
Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communi-  
cations, No 11, 1962, pp 2616-2619

"Quantitative Determination of Fluothane and its  
Isomer by Means of Infrared Spectrophotometry."

SEMONSKY, M.; ROCKOVA, E.; ZIKAN, V.; KAKAO, B.; JELINEK, V.

OSKAR

Research Institute for Pharmacy and Biochemistry, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 2, 1963,  
pp 377-396

"Substances with Antineoplastic Effect V. Solvolysis of Some  $p$ -aryl- $\alpha, \beta$ -  
-Dihalogen- $\Delta^{\alpha\beta}$ -Orotonlactones

(4)

CZECHOSLOVAKIA

EXNER, O.; KAKAO, B.

1. Polarographic Institute of the Czechoslovak Academy of Sciences, Prague; 2. Research Institute for Pharmacy and Biochemistry, Prague (for both)

Prague, Collection of Czechoslovak Chemical Communications,  
No 7, 1963, pp 1656-1662

"Acyl Derivatives of Hydroxylamine. VIII. A Spectroscopic  
Study of Tautomerism of Hydroxamic Acids."

KAKAO, B.



SEMONSKY, M.; CERNY, A.; KAKAC, B.; SUBRT, V.

Substances with antineoplastic activity. Pt. 6. Coll Cz  
Chem 28 no. 12:3278-3289 D '63.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

ERNEST, I.; KAKAC, B.; PROTIVA, M.

Synthetic experiments in the group of active hypotensive alkaloids. Pt.31. Coll Cz Chem 29 no.1:251-265 Ja'64.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.

ERNEST, I. A. K. G. B.

Synthetic tests on the group of blood pressure reducing alkaloids. Pt. 34. Chem Cz Chem 29 no. 11: 2663-2680 N '64.

1. Forschungsinstitut für Pharmazie und Biochemie, Prague.



KAKAC, B.; HUDLICKY, M.

Organic compounds of fluorine. Pt.7. Coll Cz Chem 30 no.3:  
745-751 Mr '65.

1. Research Institute of Pharmacy and Biochemistry, Prague.  
Submitted February 25, 1964.

CZECHOSLOVAKIA

KRATA, V.; HACH, V.; KARAS, B.; KOLINSKY, J.

Leciva, Dolni Mecholupy and Research Institute for  
Pharmacy and Biochemistry - (for all).

Prague, Collection of Czechoslovak Chemical Communi-  
cations, No 11, November 1965, pp 3757-3771.

"Synthesis of ( $\pm$ )-4-methyllobeline."

(9)

CZECHOSLOVAKIA

HUDLICKY, M.; KARAS, B.

Research Institute for Pharmacy and Biochemistry,  
Prague - (for both)

Prague, Collection of Czechoslovak Chemical Communi-  
cations, No 3, March 1966, pp 1101-1112

"Organic compounds of fluorine. Part 10: The synthesis  
of  $\delta$ -fluoronorleucine,  $\delta$ -hydroxynorleucine, allcisoleu-  
cine,  $\omega$ -hydroxyisoleucine, and 3-methylpyroline."

KAKAS, J., dr.

Joint conference arranged by the Hungarian Hydrological  
Society and the Hungarian Meteorological Society. Idojaras  
66 no.3:192 My-Je '62.

1. Szerkeszto, "Idojaras".

**2. Topographic effects** 3. Hungary.—C.T.

HE



KAKAS, J.

"Visit by Tu Chang Wang, Chinese Professor of Meteorology to the Hungarian Institute of Meteorology." p. 317, (IDOJARAS, Vol. 57, no. 5, Sept./Oct. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

KAKAS, J.

"The Hungarian Geographical Society is 80 Years Old." p. 319, (IDJAS, Vol. 57, no. 5, Sept./Oct. 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

KAKAS, J

Bela Bell's A talaitol a legkor hataraig (From the Ground to the Limits of the Atmosphere); a book review. p. 122.

IDOJARAS Vol. 58, no. 2, Mar. / Apr. 1954

Budapest, Hungary

Sol. EAST EUROPEAN ACCESSIONS LIST VOL. 5, no. 7, July 1956

KAKAS, J.

Climate Atlas of German Democratic Republic; a book review. p. 124.

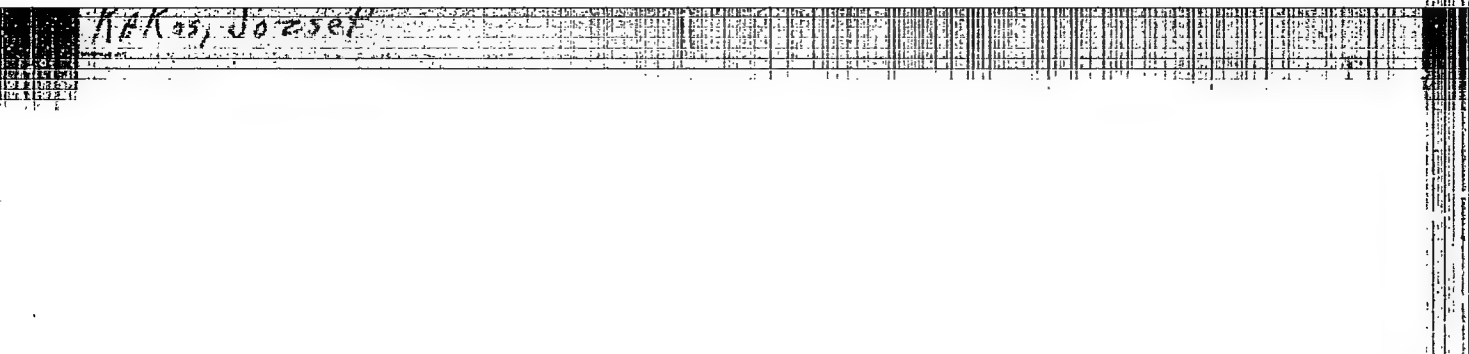
IDOJARAS VOL. 58, no. 2, Mar./Apr. 1954

Budapest, Hungary

so. EAST EUROPEAN ACCESSIONS LIST VOL. 5, no. 7, July 1956

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**"APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619920019-4**

**APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619920019-4"**

KAKAS, J.

The 1953 March drought in Hungary. p. 153.  
IDOJARAS. Budapest: Vol. 59, no. 3, May/June 1955.

SOURCE: East European Accessions List (REAL), LC, Vol. 5, No. 2,  
February 1956

**"APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619920019-4**

**APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000619920019-4"**



KAKAS, J.

Visit of the director of the Hungarian Meteorologic Institute to the  
Soviet Union. p. 305

Vol. 59, no. 5, Sept./Oct. 1955

IDCJARAS

Budapest

Source: Monthly list of East European Accessions, (HEAL), LC,  
Vol. 5, no. 3, March 1956

KAKAS, J.

The First Hungarian Geographical Congress. p. 314

Vol. 59, no. 5, Sept./Oct. 1955

IDQJARAS

Budapest

Source: Monthly list of East European Accessions, (EEAL), 1C,  
Vol. 5, no. 3, March 1956

KAKAS, J. ; ~~SECRET~~ ; ~~xxx~~

Absolute maximum of 24-hour rainfall in Hungary. p. 344. IDOJANAS. (Meteorologiai Intezet es Magyar Meteorologiai Tarsasag) Budapest. Vol. 59, no. 6, Nov./Dec. 1955

SOURCE: East European Accessions List (EEAL), Library of Congress  
Vol. 5, no. 6, June 1956

KAKAS, J. ; MEZOSI, M.

Investigation of our wind conditions and national power economy. p. 350.  
(Idojaras, Vol. 60, no. 6, Nov./Dec. 1956, Hungary)

50: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, July 1957, Uncl.